

Clifford H. Pearson (Cal. Bar No. 108523)
Daniel L. Warshaw (Cal. Bar No. 185365)
PEARSON, SIMON, WARSHAW & PENNY, LLP
15165 Ventura Boulevard, Suite 400
Sherman Oaks, CA 91403
Telephone: (818) 788-8300
Facsimile: (818) 788-8104
Email: cpearson@pswplaw.com
dwarshaw@pswplaw.com

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SUPERIOR COURT OF CALIFORNIA
COUNTY OF LOS ANGELES

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John A. Clare, Executive Officer/Clerk
BY _____, Deputy
Maly Flores

Michael P. Lehmann (Cal. Bar No. 77152)
Jon T. King (Cal. Bar No. 205073)
Arthur N. Bailey, Jr. (Cal. Bar No. 248460)
HAUSFELD LLP
44 Montgomery Street, Suite 3400
San Francisco, CA 94104
Telephone: (415) 633-1908
Fax: (415) 358-4980
Email: mlehmann@hausfelcillp.com
jking@hausfelcillp.com
abai@hausfelcillp.com

Attorneys for Plaintiffs

[See Additional Plaintiffs' Counsel on Signature Page]

SUPERIOR COURT OF THE STATE OF CALIFORNIA

COUNTY OF LOS ANGELES

Cedrick Hardman, and
Tommy Mason, individually and on behalf of
themselves and all others similarly situated,

Plaintiffs,

v.

National Football League;
NFL Properties LLC;
Riddell Inc. d.b.a. Riddell Sports Group, Inc.;
All American Sports Corp. d.b.a. Riddell/All
American;
Riddell Sports Group, Inc.;
Easton-Bell Sports, Inc.;
Easton-Bell Sports LLC;
EB Sports Corp.;
RBG Holdings Corp.; and
DOES 1 through 200, inclusive,

Defendants.

Case No.

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CLASS ACTION

**PLAINTIFFS' CLASS ACTION AND
INDIVIDUAL COMPLAINT FOR
DAMAGES, DECLARATORY AND
MEDICAL MONITORING RELIEF
AND DEMAND FOR JURY TRIAL**

- 1. Declaratory Relief**
- 2. Medical Monitoring**
- 3. Negligence (against NFL Defendants)**
- 4. Negligence (against Riddell Defendants)**
- 5. Fraud**

FILED
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CLERK OF COURT
JURY TRIAL
DEMAND
AND
FRAUD
RIDDELL
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GROUP
INC.
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This case is assigned to Dept. 324 at the Central Civil West Courthouse
for COMPLEX DETERMINATION ONLY

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INTRODUCTION

1. This action is brought by former National Football League ("NFL" or "League") players who seek declaratory and medical monitoring relief based on claims of negligence and fraud with respect to brain injuries caused by repeated traumatic brain and head impacts received during the period when they were active in professional football. These claims for relief are brought on a classwide basis on behalf of all former NFL players who reside in California. The allegations herein, except as to the Plaintiffs, are based on information and belief.

JURISDICTION AND VENUE

2. Jurisdiction is based on Article 6, Section 10 of the California Constitution and Cal. Code Civ. Pro. § 3410.10.

3. Venue in this action is proper in this Court pursuant to Cal. Code of Civ. Pro. § 395(a).

THE PARTIES

4. Plaintiff Cedrick Hardman ("Hardman") resides in Laguna Beach, California. Hardman, who is now 63 years old, played in the NFL on two teams (San Francisco 49ers and Oakland Raiders) from 1970-1981. He wore a Ridell helmet when he played. Mr. Hardman has experienced cognitive difficulties including headaches, dizziness, loss of memory, depression, fatigue, and sleep problems. Hardman experienced repeated and chronic head impacts during his career in the NFL, is at increased risk of latent brain disease, and is in need of diagnostic examinations and medical monitoring.

5. Plaintiff Tommy Mason ("Mason") resides in Orange County, California. Mason, now 72 years old, played in the NFL on three teams (Minnesota Vikings, Los Angeles Rams, and Washington Redskins) from 1961-1972. He wore a Ridell helmet when he played. Mr. Mason has experienced cognitive difficulties, including loss of memory and symptoms of

dementia. Mason experienced repeated and chronic head impacts during his career in the NFL, is at increased risk with respect of latent brain disease, and is in need of diagnostic examinations and medical monitoring.

6. Defendant National Football League, which maintains its offices at 280 Park Avenue, New York, New York, is an unincorporated association consisting of the 32 separately-owned and independently-operated professional football teams that are listed below. The National Football League is engaged in interstate commerce in the business of; among other things, operating the sole major professional football league in the United States. The National Football League is not, and has not, been the employer of the Plaintiffs, who were employed during their respective careers in professional football by the independent clubs indicated above. The United States Supreme Court held last year in *American Needle, Inc. v. NFL*, 130 S.Ct. 2201, 2212-13 (2010) that each team that is a member of the National Football League is a legally distinct and separate entity from both other teams and the League itself:

The NFL teams do not possess either the unitary decisionmaking quality or the single aggregation of economic power characteristic of independent action. Each of the teams is a substantial, independently owned, and independently managed business. "[T]heir general corporate actions are guided or determined" by "separate corporate consciousnesses," and "[t]heir objectives are" not "common." ... The teams compete with one another, not only on the playing field, but to attract fans, for gate receipts and for contracts with managerial and playing personnel.

7. The 32 separately-owned and independently-operated professional football teams are:

NFL Team Owner	State of Organization	Team Name (City)
Arizona Cardinals, inc.	Arizona	Arizona Cardinals
Atlanta Falcons Football Club LLC	Georgia	Atlanta Falcons

1	Baltimore Ravens Limited Partnership	Maryland	Baltimore Ravens
2	Buffalo Bills, Inc.	New York	Buffalo Bills
3	Panthers Football LLC	North Carolina	Carolina Panthers
4	Chicago Bears Football Club, Inc.	Delaware	Chicago Bears
5	Cincinnati Bengals, Inc.	Ohio	Cincinnati Bengals
6	Cleveland Browns LLC	Delaware	Cleveland Browns
7	Dallas Cowboys Football Club, Ltd.	Texas	Dallas Cowboys
8	Denver Broncos Football Club	Colorado	Denver Broncos
9	Detroit Lions, Inc.	Michigan	Detroit Lions
10	Green Bay Packers, Inc.	Wisconsin	Green Bay Packers
11	Houston NFL Holdings LP	Delaware	Houston Texans
12	Indianapolis Colts, Inc.	Delaware	Indianapolis Colts
13	Jacksonville Jaguars Ltd.	Florida	Jacksonville Jaguars
14	Kansas City Chiefs Football Club, Inc.	Texas	Kansas City Chiefs
15	Miami Dolphins, Ltd.	Florida	Miami Dolphins
16	Minnesota Vikings Football Club LLC	Minnesota	Minnesota Vikings
17	New England Patriots, LP	Delaware	New England Patriots
18	New Orleans Louisiana Saints LLC	Texas	New Orleans Saints
19	New York Football Giants, Inc.	New York	New York Giants
20	New York Jets Football Club, Inc.	Delaware	New York Jets
21	Oakland Raiders LP	California	Oakland Raiders
22	Philadelphia Eagles Football Club, Inc.	Delaware	Philadelphia Eagles
23	Pittsburgh Steelers Sports, Inc.	Pennsylvania	Pittsburgh Steelers
24	San Diego Chargers Football Co.	California	San Diego Chargers

San Francisco Forty Niners Ltd.	California	San Francisco 49ers
Football Northwest LLC	Washington	Seattle Seahawks
The Rams Football Company LLC	Delaware	St. Louis Rams
Buccaneers Limited Partnership	Delaware	Tampa Bay Buccaneers
Tennessee Football, Inc.	Delaware	Tennessee Titans
Washington Football Inc.	Maryland	Washington Redskins

8. Defendant NFL Properties, LLC, as the successor-in-interest to National Football League Properties Inc. ("NFL Properties"), is a limited liability company organized and existing under the laws of the State of Delaware with its headquarters in the State of New York. NFL Properties is engaged in, among other activities, approving, licensing and promoting equipment used by all the National Football League teams. NFL Properties regularly conducts business in California.

9. Defendants National Football League, NFL Properties and DOES 1 through 50 shall be referred to collectively herein as the "NFL" or "League."

10. The NFL caused or contributed to the injuries and increased risks alleged herein through its acts and omissions in failing to disclose the true risks of repeated traumatic brain and head impacts in NFL football, and failing to take appropriate steps to prevent and mitigate repeated traumatic brain and head impacts in the NFL and the latent neurodegenerative disorders and diseases caused by these impacts.

11. Defendant Riddell, Inc. (d/b/a Riddell Sports Group, Inc.) is a corporation organized and existing under the laws of the State of Illinois, and is engaged in the business of designing, manufacturing, selling and distributing football equipment, including helmets, to the NFL and since 1989 has been the official helmet of the NFL. Riddell, Inc. regularly conducts business in California

12. Defendant All American Sports Corporation (d/b/a Riddell/All American) is a corporation organized and existing under the laws of the State of Delaware and is engaged in the business of designing, manufacturing, selling and distributing football equipment, including helmets, to the NFL, and since 1989 has been the official helmet of the NFL. All American Sports regularly conducts business in California.

13. Defendant Riddell Sports Group, Inc. is a Delaware corporation with its principal place of business at 6255 N. State Highway, #300, Irving, Texas 76038. Riddell Sports Group, Inc. regularly conducts business in California.

14. Defendant Easton-Bell Sports, Inc. is a California corporation, incorporated in Delaware with its principal place of business at 7855 Haskell Avenue, Suite 200, Van Nuys, California 91406, and is a parent corporation of Riddell Sports Group, Inc.

15. Defendant Easton-Bell Sports, LLC is the parent corporation of Easton-Bell Sports, Inc. and is incorporated in Delaware, with its principal place of business at 152 West 5th Street, New York, New York 10019. Easton-Bell Sports, LLC regularly conducts business in California.

16. Defendant EB Sports Corp. is a Delaware corporation with its principal place of business at 7855 Haskell Avenue, Van Nuys, California 91406.

17. Defendant RBG Holdings Corp. is a Delaware corporation with its principal place of business at 7855 Haskell Avenue, Suite 350, Van Nuys, California 91406.

18. Defendants Riddell, Inc., Riddell Sports Group Inc., All American Sports Corporation, Easton-Bell Sports, Inc., EB Sports Corp., Easton-Bell Sports, LLC, RBG Holdings Corp. and DOES 51 through 100 shall hereinafter be referred to collectively as "Riddell."

19. Defendant Riddell caused or contributed to the injuries and increased risks alleged herein through its complicit conduct with that of the NFL alleged herein. Riddell also

failed to disclose the risks of repeated traumatic brain and head impacts and the latent neurodegenerative disorders and diseases caused by these impacts.

20. Plaintiffs are unaware of the true names and capacities of Defendants sued as DOES 1 through 200, inclusive, and therefore sues these Defendants by such fictitious names. Plaintiffs will request leave to amend the Complaint to allege their true names and capacities when ascertain. Plaintiffs are informed and believe and thereon allege that each of the fictitiously named Defendants are negligent and responsible in some manner for the occurrences alleged in this Complaint, and that Plaintiffs' damages as alleged in the Complaint are proximately caused by that negligence.

CLASS ACTION

21. Plaintiffs are representatives of a Class, as defined by Cal. Code of Civ. Pro. § 382, and bring this action with respect to declaratory relief, medical monitoring, fraud and negligence claims on behalf of themselves and a class with respect to which the NFL has acted or refused to act on grounds that apply generally to the class.

22. The Class is defined as:

All retired or former professional football players who reside in the State of California who were employed by any member club that was part of the association called the NFL but are not now salaried employees of the NFL or any member club.

23. Excluded from the class are those persons who fall within the definition of the Collective Bargaining Unit ("CBU") contained in the 2006-12 Collective Bargaining Agreement ("CBA") or its successor, executed in 2011.

24. The Class is so numerous and geographically so widely dispersed that joinder of all members is impracticable. There are questions of law and fact common to the class. Plaintiffs' claims are typical of the claims of the class that they represent and Plaintiffs will fairly and adequately protect the interests of the proposed class.

25. Questions of law and fact common to Class members predominate over any questions affecting only individual class members. These include the following:

- (a) Whether Plaintiffs and the Class are entitled to the declaration of rights that they seek herein;
- (b) Whether Plaintiffs and the Class are entitled to the injunctive medical monitoring relief that they seek herein;
- (c) Whether the Defendants have any affirmative defenses that can be litigated on a classwide basis; and
- (d) Whether the Defendants' tortious conduct was negligent and/or fraudulent and caused members of the Class to be at risks of repeated traumatic brain and head impacts and the excess risk of latent neurodegenerative disorders and diseases, as well as the need for medical monitoring.

26. A class action is superior to other available methods for fairly and efficiently adjudicating the controversy.

NATURE OF NFL's BUSINESS

27. The primary business in which the NFL and its member clubs are engaged is the operation of major league professional football teams and the sale of tickets and telecast rights to the public for the exhibition of the individual and collective football talents of players such as Plaintiffs.

28. The NFL's transactions involve collective annual expenditures and receipts in excess of \$9.3 billion. But, as Dan Greeley, CEO of Network Insights, has noted:

The NFL is like Procter & Gamble. There's the holding company, the core operation, but then each brand has its own team and world of revenue. Like Tide: That's a P&G product but within that there are different types of Tide and a number of people that make money from it. So the \$9.3 billion pie just scratches the surface and doesn't

get into how much is spent around stadiums, merchandise, agents, all the way down to mom-and-pop shops.

29. Annually, the NFL redistributes upwards of \$4 billion in radio, television and digital earnings to the clubs that are part of the NFL association - \$125 million apiece, plus an equal share for the league - and that number shows no sign of declining. The 19 highest-rated fall television programs (and 28 of the top 30) were NFL games, and this year's Super Bowl was the most-watched program ever. The NFL earns huge amounts annually from its telecasting deals with, *inter alia*, ESPN (\$1.1 billion), DirecTV (\$1 billion), NBC (\$650 million), Fox (\$712.5 million), and CBS (\$622.5 million).

30. Companies pour money into the league's coffers for the right to associate their brands with the NFL. Among those making such contributions are Pepsi (\$560 million over eight years, starting in 2004) and Gatorade (\$45 million per year, plus marketing costs and free Gatorade for teams). Verizon is paying \$720 million over four years to be the league's wireless service provider. Nike paid \$1.1 billion to acquire the NFL's apparel sponsorship. Previous partner Reebok had been selling \$350 million annually in NFL-themed gear. The League has a \$1.2 billion, six-year deal with beer sponsor Anheuser-Busch, but teams still cut their own deals when it comes to pouring rights at stadiums. On September 7, 2011, it was announced that the NFL signed a new 10 year \$2.3 billion deal with Pepsi, which is one of the largest sponsorship deals in sports history. It encompasses a number of Pepsi brands (Pepsi, Frito-Lay, Tropicana, Quaker Oats and Gatorade). This deal, combined with a number of other new sponsorships, ticket sales projections and TV ratings mean that the NFL is projecting record revenues of over \$9.5 billion this season.

31. Teams can collect \$25-\$30 million for stadium naming rights, usually on 10-year deals. The largest is Reliant Energy's \$10 million per year contract with the Houston Texans.

In Los Angeles, Farmers Insurance has promised \$700 million over 30 years to name a stadium for a team that doesn't exist yet.

32. Many clubs that are part of the NFL association own in whole or in part the stadiums in which they play, which can be a source of major commercial value, as reflected in the following chart:

STADIUM, TEAM	OPENED	PRICE (2010 DOLLARS)	% PRIVATE
New Meadowlands, NY	2010	\$1.6B	100
Cowboys Stadium, DAL	2009	\$1.15B	56
Lucas Oil Field, IND	2008	\$780M	13
U. of Phoenix Stadium, ARI	2006	\$493M	32
Lincoln Financial, PHI	2003	\$588M	65
Ford Field, DET	2002	\$504M	49
Gillette Stadium, NE	2002	\$373M	100
Reliant Stadium, HOU	2002	\$526M	39
Qwest Field, SEA	2002	\$422M	29
Invesco Field, DEN	2001	\$683M	39
Heinz Field, PIT	2001	\$312M	16

33. In 2010, more than 17 million fans passed through turnstiles operated by clubs that are part of the NFL association, paying anywhere from \$54.51 (Cleveland Browns) to \$1 17.84 (New England Patriots) for the average game ticket. Though the league will not open its books, numbers for the publicly-held Green Bay Packers ("Packers") offer some insight into what

teams reap at the ticket office and concession stands. In 2010, the Packers cleared \$60,059,646 from home and away game tickets plus private boxes. Projected over 32 teams, that's nearly \$2 billion annually. The Packers reaped \$13 million from concessions, parking and local media in 2010, which translates to \$416 million on a league-wide basis.

FACTUAL ALLEGATIONS

The Scientific Evidence On Concussions And Head Injuries And The NFL's Responses To It

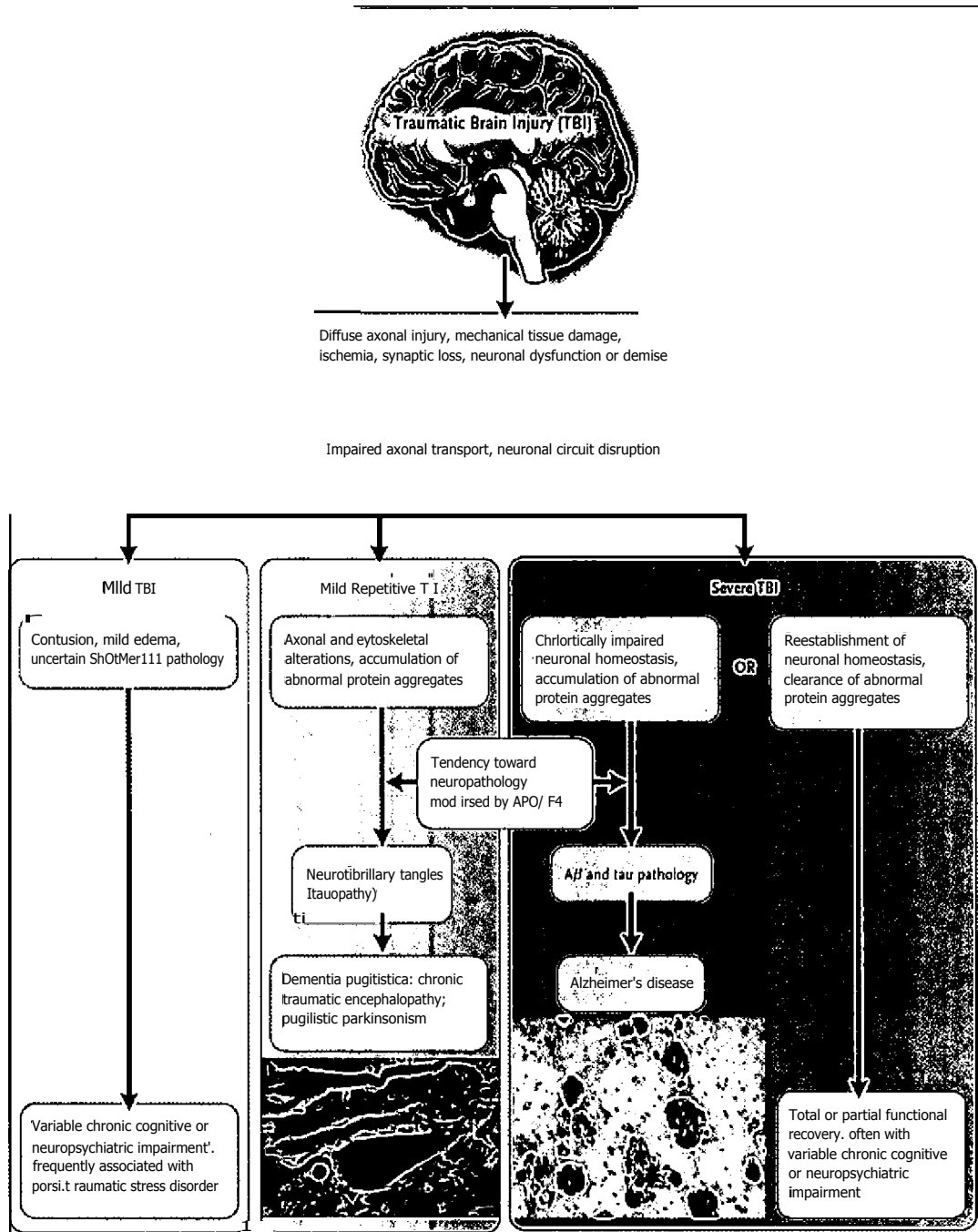
34. A 2011 article in the *Journal of Sports & Entertainment Law of Harvard Law School* has summed up the consequences of concussions to athletes :

[F]ootball players are becoming bigger, faster, and stronger, thereby increasing the force of collisions that occur during a game and increasing the potential for serious injuries. The brain is a soft organ, surrounded by cerebrospinal fluid and protected by the tough, bony skull. Normally, the fluid around the brain serves as a protective cushion for the brain, isolating it from direct impact to the skull. When the head suffers violent impact, the brain can hit the skull, causing the brain temporarily to stop working normally. This is called a concussion.

More serious injuries occur after the initial concussion. A concussion causes **brain cells to become depolarized and allows** neurotransmitters to behave in an abnormal fashion, causing such symptoms as memory loss, nausea, and confusion. After the initial concussion, when the brain is not fully healed, it is very fragile and susceptible to minor accelerative forces. Thus, subsequent minor hits may cause traumatic and permanent brain injury. This is the heart of the problem: players returning to the football field before allowing their initial concussion to heal fully. When the player returns to the field too early, he is at risk for what is known as Second Impact Syndrome (SIS). SIS is the event that ensues when there is a subsequent brain impact before the initial concussion has been given time to heal. Additionally, when concussions occur with high frequency, a disease called Chronic Traumatic Encephalopathy (CTE) may occur in the brain. "CTE is a progressive neurodegenerative disease caused by repetitive trauma to the brain which eventually leads to dementia." While CTE was originally diagnosed most commonly in boxers, it is now regularly found in football players. **Of all sports related injuries, concussions are the injuries that most often go unnoticed and untreated, especially in football.** (Emphasis added and footnotes omitted).

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35. The following chart, excerpted from a 2010 article in the *New England Journal of Medicine* entitled "Traumatic Brain Injury — Football, Warfare And Long-Term Effects," shows how even repetitive mild traumas can have lasting consequences:



Spectrum of Pathologic Features and Outcomes of Traumatic Brain Injury (TBI).

In the left inset, Bielschowsky silver stain shows intraneuronal and extracellular neurofibrillary tangles in temporal cortex from a retired boxer with dementia pugilistica. The right inset shows diffuse Aβ plaque deposits in temporal cortex from a subject who sustained severe TBI?

36. The NFL's responses to the issue of brain injuries caused to retired NFL players because of concussions or head impacts received during the period that they played professional football has been, until very recently, one of deception and denial. The NFL and several of the scientists it employed actively tried to conceal the extent of the problem until recently. Furthermore, the response of the League once it actually acknowledged the issue has been inadequate.

37. The League's disinformation campaign was spearheaded by its Mild Traumatic Brain Injury Committee ("MTBI Committee," sometimes also referred to in press reports as the "Concussion Committee"), which was created in 1994, and chaired from 1994 to February of 2007 by Dr. Elliott Pellman ("Pellman"), a rheumatologist who reportedly attended medical school in Guadalajara, Mexico. Dr. Pellman worked with two other scientists on the MTBI Committee — Dr. Ira Casson ("Casson"), a neurologist, and Dr. David Viano ("Viano"), a biomechanical engineer, to attempt to discredit a slew of scientific studies that linked head impacts and concussions received by NFL players to brain injuries. Casson and Viano replaced Penman as co-chairs of the MTBI Committee in February of 2007.

38. Since 1994, the MTBI Committee had been conducting a study to determine the effect of concussions on the long-term health of retired NFL players. In a November 2007 report to Congress, NFL Commissioner Roger Goodell ("Goodell") said that the MTBI Committee's study was in its "initial" data collection phase and that "[w]e do not know when this study will be completed, although it is likely that a comprehensive study will require at least several years of research and analysis."

39. In October of 2006, Pellman and Viano published in *Neurological Focus* an interim report on the MTBI Committee's efforts that surveyed 12 years of data collection. The authors analyzed collected "data on mild TBIs sustained between 1996 and 2001" and concluded that:

I

Because a significant percentage of players returned to play in the same game [as they suffered a mild traumatic brain injury] and the overwhelming majority of players with concussions were kept out of football-related activities for less than 1 week, **it can be concluded that mild TBIs in professional football are not serious injuries.** (Emphasis added).

40. As explained further below, this conclusion was against the weight of the scientific evidence, a fact that the members of the MTBI Committee well knew; it was also based on biased data collection techniques. As ESPN reported in February of 2007:

Last fall, *ESPN The Magazine* reported that Pellman was selective in his use of injury reports in reaching his conclusions and omitted large numbers of players from the league's concussion study. His findings also contradicted other scientific studies into the effects of concussions:

- In January 2005, Pellman and his colleagues wrote that returning to play after a concussion "does not involve significant risk of a second injury either in the same game or during the season." But a 2003 NCAA study of 2,905 college football players found just the opposite: Those who have suffered concussions are more susceptible to further head trauma for seven to 10 days after the injury.
- Pellman, a rheumatologist, and his group have also stated repeatedly that their work shows "no evidence of worsening injury or chronic cumulative effects of multiple [mild traumatic brain injury] in NFL players." But a 2003 report by the Center for the Study of Retired Athletes at the University of North Carolina found a link between multiple concussions and depression among former pro players with histories of concussions. And a 2005 follow-up study at the Center showed a connection between concussions and both brain impairment and Alzheimer's disease among retired NFL players.

41. The concerns about head injuries associated with the playing of football — and the refusal to recognize those concerns by those in charge of the game — have a long history. In February of 2010, Dr. Bennet Omalu ("Omalu"), Co-Director of the Brain Injury Institute at West Virginia University, spoke before members of the House Judiciary Committee at a forum in Houston, Texas with regard to "Head and Other Injuries in Youth, High School, College, and Professional Football." In his prepared testimony, he explained:

Glenn Pop Warner [1871 — 1954] founded the Pop Warner youth football league in 1929. He still remains one of the greatest football coaches in the history of American football. The single event, which necessitated the use of pads and helmets by football players took place in 1888 when the annual rules convention for the emerging sport of college football passed a rule permitting tackling below the waist.

"Football changed dramatically. Teams no longer arrayed themselves across the entire breath of the field. Teams bunched themselves around the runner to block for him. The wedge and mass play arrived. Football became, for a time, a savage sport full of fights, brawling, even fatalities."

In 1912, Pop Warner said: "Playing without helmets gives players more confidence, saves their heads from many hard jolts, and keeps their ears from becoming torn or sore. I do not encourage their use. I have never seen an accident to the head which was serious, but I have many times seen cases when hard bumps on the head so dazed the player receiving them that he lost his memory for a time and had to be removed from the game."

We have known about concussions and the effects of concussions in football for over a century. Every blow to the head is dangerous. Repeated concussions and sub-concussions both have the capacity to cause permanent brain damage. During practice and during games, a single player can sustain close to one thousand or more hits to the head in only one season without any documented or reported incapacitating concussion. Such repeated blows over several years, no doubt, can result in permanent impairment of brain functioning especially in a child. (Emphasis added and footnotes omitted).

42. The scientific evidence on concussions received while playing NFL football and subsequent brain disease has been mounting, but for a long period, the NFL attempted to deny or discredit it.

43. For the period from 1931 to 2006, the National Center for Catastrophic Sport Injury Research has reported 1,006 direct and 683 indirect fatalities resulting from participation in all organized football in the United States; the annual number of indirect fatalities has remained near 9.0 per year.

44. A 1994 Bali State University survey found that "players in the 1980s suffered serious injuries and underwent operations at twice the rate of those who played in the 1950s or earlier."

45. A study presented at the American Academy of Neurology's 52nd Annual Meeting in 2000 and authored principally by Dr. Barry Jordan, Director of the Brain Injury Program at Burke Rehabilitation Hospital in White Plains, New York, surveyed 1,094 former NFL players between the ages of 27 and 86 and found that: (a) more than 61% had suffered at least one concussion in their careers with 30% of the players having three or more and 15% having five or more; (b) 51% had been knocked unconscious more than once; (c) 73% of those injured said they were not required to sit on the sidelines after their head trauma; (d) 49% of the former players had numbness or tingling; 28% had neck or cervical spine arthritis; 31% had difficulty with memory; 16% were unable to dress themselves; and 11% were unable to feed themselves; and (e) eight suffered from Alzheimer's disease.

46. A 2001 report by Dr. Frederick Mueller that was published in the *Journal of Athlete Training* reported that a football-related fatality has occurred every year from 1945 through 1999, except for 1990. Head-related deaths accounted for 69% of football fatalities, cervical spinal injuries for 16.3%, and other injuries for 14.7%. From 1984 through 1999, 69 football head-related injuries resulted in permanent disability.

47. A series of important studies on football-related injuries emanated from the University of North Carolina ("UNC"), which were then attacked by members of the NFL's MTBI Committee.

48. A 2000 UNC study found that in the period between 1977 and 1998, an annual average of 13 athletes had suffered catastrophic injuries (primarily permanent paralysis) as the direct result of participation in football. The study also found that between 1977 and 1998, 200

football players received a permanent cervical cord injury, and 66 sustained a permanent cerebral injury." As reported in *Science Daily*:

The study, published in the September-October issue of the *American Journal of Sports Medicine*, suggests that the brain is more susceptible to injury when it has not had enough time to recover from a first injury. Researchers say the finding is important because concussions can lead to permanent brain damage, vision impairment or even death if not managed properly.

"We believe recurrences are more likely because injured players are returning to practice and to games too quickly after blows to the head," said Dr. Kevin M. Guskiewicz, assistant professor of exercise and sport science at UNC-CH and study leader. "Many clinicians are not following the medical guidelines that players should be symptom-free for several days before returning." (Emphasis added).

49. A 2003 study partially authored by the aforementioned Dr. Kevin Guskiewicz ("Guskiewicz") of UNC analyzed data from almost 2,500 retired NFL players and found that 263 of the retired players suffered from depression. The study found that having three or four concussions meant twice the risk of depression compared to never-concussed players and five or more concussions meant a nearly threefold risk.

50. in November of 2003, Guskiewicz was scheduled to appear on HBO's "Inside the NFL" to discuss his research. Pellman, who was also going to be on the show, called Guskiewicz. "I had never spoken with him before, and he attacked me from the get-go," Guskiewicz said. "He questioned whether it was in my best interest to do the show. He was a bull in a china shop." On the program, Pellman said unequivocally, **"[w]hen I look at that study, I don't believe it."** (Emphasis added).

51. In 2005, Guskiewicz did a follow-up to his 2003 study and found that retired NFL players who sustained three or more concussions had a fivefold greater likelihood of suffering Mild Cognitive Impairment ("MCI") than retired NFL players who had no history of concussions. Guskiewicz based his conclusions on a survey of over 2,550 former NFL players. Dr. Mark Lovell

("Lovell") of the NFL's MTBI Committee asserted that Guskiewicz's study lacked "scientific rigor" and that one couldn't tell anything from a survey.

52. **"Pellman's committee has repeatedly questioned and disagreed with the findings of researchers who didn't come from their own injury group,"** said Julian Bai les, Chairman of Neurosurgery at West Virginia University. (Emphasis added).

53. The MTBI Committee decided to respond to these types of studies by presenting *biased research* derived from its ongoing survey of retired NFL players. *ESPN The Magazine* described what happened:

In October 2003, Pellman and members of his committee published the first of a long-running series on concussions in *Neurosurgery*, a scholarly journal edited by Mike Apuzzo, the New York Giants' neurosurgical consultant. The committee's earliest studies used crash test dummies to reenact helmet blows. Later, the group decided to explore the ill effects of multiple concussions, and Pellman charged one of its members, Mark Lovell, head of the University of Pittsburgh Medical Center's Sports Medicine Concussion Program, to oversee the collection and analysis of leaguewide data. Pellman chose Lovell because he had conducted neuropsychological tests for the Steelers as early as 1993. And in 1995, Lovell began to run the NFL's neuropsychology program, which encouraged teams to gather data to help decide when to return players to games.

Using the information they would obtain, Pellman, Lovell and the committee planned to look at baseline results and identify a normal range of scores for uninjured NFL players. Then, comparing postinjury scores to baseline data would show the effects of concussions. Comparing data from players with multiple concussions to that of all injured players would show whether concussive effects changed as injuries accumulated.

A lot was riding on the analysis. The committee had never imposed recommendations on team medical staffs. **But this was the first study ever to analyze the brain function of NFL athletes. If it showed that concussions were significantly impairing players, the league might be forced to institute new rules for evaluating and treating head injuries.** Pellman and Lovell both say they invited all teams to participate in the research (Lovell says 11 teams elected to join the study) and tried to collect as many results as they could. As Lovell puts it, "More data is always better." **Several of the doctors involved, however, tell a different story.** [William] Barr [a neuropsychologist at Long Island Jewish Hospital], for

example, conducted 217 baseline tests from 1996 to 2001. Periodically, he forwarded results to the league, but at the time Barr learned the committee was planning to publish its results, he had sent only 149. Barr remembers finding Pellman in the Jets' training room in 2003 and saying, "Elliot, I haven't sent data for a year." **According to Barr, Pellman didn't want the additional tests. "I don't want the data to be biased because I'm with the Jets," Barr recalls him saying, suggesting that additional results would skew the data because the Jets would be overrepresented in the sample. That made no sense to Barr. A scientific study should include, or at least address, all available data.**

Pellman denies this conversation ever took place. "Bill Barr was a consultant for the Jets who tested individual players to help us make decisions," he says. "I did not discuss the committee's research with him." **Whoever is right, the fact is the group didn't have all of Barr's data for its paper.**

Barr's wasn't the only research that didn't make the cut. Over the period covered by the committee's research, Christopher Randolph, a Chicago neuropsychologist, collected baselines for 287 Bears players. **He says Lovell never asked for his data, either.**

Nor did the committee seek complete data from John Woodard, neuropsychologist for the [Atlanta! Falcons and associate psychology professor at the Rosalind Franklin University of Medicine and Science in North Chicago. According to Woodard, in December 2003, Lovell said the league was pressuring him to compile team results. "I was asked to provide data on only concussed players," **Woodard says. "I had data for slightly more than 200 baseline evaluations. I don't know why I was not asked for them."**

In 2004, Lovell also asked Richard Naugle, consultant to the Browns and head neuropsychologist at the Cleveland Clinic, for data on just the players who had already suffered concussions, according to an e-mail Naugle wrote to a colleague in March 2005. Naugle declined to comment for this story, citing a confidentiality deal between his medical group and the NFL, but The Magazine has obtained a copy of that message. "I don't have that sorted out from the results of other testing," Naugle wrote of the request. "I explained that and added that if he could name players, I could send data on those individuals. I recall sending him data on two or three players ... I have a few hundred baselines."

This means Pellman, Lovell and their colleagues didn't include at least 850 baseline test results in their research—more than the 655 that ultimately made it into their 2004 *Neurosurgery* paper.

At best, their numbers were incomplete. At worst, they were biased.

PeLiman, Lovell and their colleagues published their sixth paper in *Neurosurgery* in December 2004. It examined baseline data on 655 players and results for 95 players who had undergone both baseline testing and postconcussion testing. It concluded that NFL players did not show a decline in brain function after suffering concussions. Further analysis found no ill effects among those who had three or more concussions or who took hits to the head that kept them out for a week or more. **The paper didn't explain where the players in the groups came from specifically or why certain players were included and hundreds of others were not. Neither Pellman nor Lovell has provided those details since.** (Emphasis added).

54. Scientists concurred with the assessment that the MTBI Committee's research was biased and unreliable. As the *ESPN The Magazine* article noted:

The decision to publish the paper was controversial. **"I highly doubt this study would have seen the light of day at this journal were it not for the subject matter of NFL players,"** says Robert Cantu, chief of neurosurgery and director of sports medicine at Emerson Hospital in Concord, Mass., and a senior editor at *Neurosurgery*. **"The extremely small sample size and voluntary participation suggest there was bias in choosing the sample. The findings are extremely preliminary at best, and no conclusions should be drawn from them at this time."**

One of the scientists who reviewed the committee's work is equally blunt. **"They're basically trying to prepare a defense for when one of these players sues,"** he says. **"They are trying to say that what's done in the NFL is okay because in their studies, it doesn't look like bad things are happening from concussions. But the studies are flawed beyond belief."** (Emphasis added).

55. Guskiewicz was also quoted as saying, **"Mlle data that hasn't shown up makes their work questionable industry-funded research."** (Emphasis added).

56. Pellman was not the only NFL hired gun peddling disinformation about head impacts or concussions and brain injuries. Casson and Viano of the NFL's MTBI Committee were playing a similar role, assisted by Lovell.

57. Between 2005 and 2007, Omalu and Dr. Robert Cantu ("Cantu"), Co-Director for the Center for the Study of Traumatic Encephalopathy ("CSTE") at the Boston University School of Medicine ("BUSM"), examined the brain tissue of three deceased NFL players: (a) Mike Webster ("Webster") of the Pittsburgh Steelers, who died of heart failure at the age of 50; (b) Terry Long ("Long") of the Pittsburgh Steelers, who died at 45 after drinking antifreeze; and (c) Andre Waters ("Waters") of the Philadelphia Eagles and Arizona Cardinals, who committed suicide at the age of 44. All three of these individuals suffered multiple head impacts during their respective NFL careers. All three exhibited symptoms of sharply deteriorated cognitive functions, paranoia, panic attacks and depression. In articles published in *Neurosurgery* in 2005 and 2006, Omalu found that Webster's and Long's respective deaths were partially caused by CTE, related to multiple NFL concussions suffered during their professional playing years. Cantu reached a similar conclusion as to Waters in an article published in *Neurosurgery* in 2007.

58. The following photographs, available from Brain-Pad Blog, show the contrast between a normal brain (depicted on the left) and Webster's autopsied brain (depicted on the right):



59. In response to Omalu's article on Webster, Casson of the NFL's MTBI Committee wrote a letter in July of 2005 to the editor of *Neurosurgery* asking that Omalu's article be retracted.

60. In 2008, Dr. Ann McKee ("McKee") of the CSTE at BUSM examined the brain tissue of two other deceased NFL players: (a) John Grimsley ("Grimsley") of the Houston Oilers, who died of a gunshot wound at the age of 45; and (b) Tom McHale ("McHale") of the Tampa Bay Buccaneers, Philadelphia Eagles and Miami Dolphins, who died of a drug overdose at the age of 45. McKee found that Grimsley and McHale's brain tissue exhibited indications of CTE. As she stated, **"the easiest way to decrease the incidence of CTE in contact sport athletes] is to decrease the number of concussions."** (Emphasis added). She further noted that **Itjhere is overwhelming evidence that [GTE] is the result of repeated sublethal brain trauma."**

61. A *Washington Post* article published in early 2009 reported the following comments by McKee with respect to her analysis of McHale's brain:

"Is this something that happened by chance?" asked Ann McKee, a neuropathologist at Boston University pointing to pictures of McHale's brain that she said resembled that of a 72-year-old boxer. **"I can tell you I've been looking at brains for 22 years, and this is not a normal part of aging. This is not a normal part of the brain."** (Emphasis added).

62. In response to McKee's studies, Casson continued his campaign of NFL-sponsored disinformation by characterizing each as an isolated incident from which no conclusion could be drawn and said he would wait to comment further until McKee's research was published in a peer-reviewed journal. When it was so published in 2009, Casson asserted that **"there is not enough valid, reliable or objective scientific evidence at present to determine whether ... repeat head impacts in professional football result in long[-]term brain damage."** (Emphasis added).

63. The increasing controversy drew the attention of Congress. On June 23, 2007, hearings on the NFL's compensation of retired players were held before the Commercial and Administrative Law Subcommittee of the Judiciary Committee of the United States House of Representatives ("C&A Subcommittee"). Goodell was one of those who testified at this hearing.

In follow-up responses that Goodell sent to the C&A Subcommittee in November of 2007, he continued to rely on the discredited survey research being undertaken by the MTBI Committee.

64. In response to these hearings and associated media reports, the League scheduled a Concussion Summit in June of 2007. Independent scientists, including Omalu, Cantu and Guskiewicz, presented their research to the League and to representatives of the National Football League Players Association ("NFLPA"). As one contemporaneous news article reported:

"I'm not even sure we athletes know what a concussion is," said safety Troy Vincent, who also is president of the NFL Players Association. "Outside of being knocked out, I stayed in the game."

After a player suffers a concussion, his team's medical staff determines when he is fit to return to play. Studies vary on whether a quick return puts the player at risk of more severe injury.

The NFL commission, after reviewing five years of on-field concussions, found no evidence for an increase in secondary brain injuries after a concussion, a conclusion that has met with skepticism.

"Science is very clear that returning guys to play in the same game, or quickly within a few days, contributes to neuron loss and long-term problems," said former pro wrestler Christopher Nowinski, who retired after repeated concussions and has written a book on the controversy. "With the NFL being both the only and most prominent voice to say it doesn't exist, it slows down acceptance and adoption of policies to reduce risk."

While the NFL commission has focused on short-term effects of concussions, recent findings suggest players may suffer depression, dementia and other symptoms later in life. (Emphasis added).

65. The result of this conference was a complete whitewash of the problem by the NFL. The League issued a press release and pamphlet to players on August 14, 2007. It stated that:

Current research with professional athletes has not shown that having more than one or two concussions leads to permanent problems . . . It is important to understand that there is no magic number for how many concussions is too many. (Emphasis added).

66. This act of denial and deception was consistent with the positions taken by Pellman, Casson, Lovell and Viano, as described above.

67. The NFL's refusals to face reality and its attempts to cover up the links between on-field concussions or head impacts and brain injuries are exacerbated by the way its member clubs provide medical services to top players. As one 2009 article explained:

The conflicted interests that burden many NFL trainers exacerbate the NFL's concussion problem. An emerging practice in sports medicine involves medical providers "auctioning off the right to be an NFL team's 'official' medical provider, hospital, or physician-group." The privilege of being selected comes with the right to advertise in one's promotional materials that her group has been named the "official healthcare provider" of a particular team. "In return, the team is provided with medical care for free or at reduced cost."

NFL players are the victims of this pay-to-play system as they receive medical care compromised by the financial interests of NFL trainers. It is no secret that the NFL is a business, and an extremely successful one at that. When trainers are intertwined with team management, their medical decisions become clouded by the number one money-making criterion in the NFL business: *winning*. In order for teams to maximize profit through winning games, it stands to reason that coaches and management place incredible pressure on trainers to return their most talented athletes to the playing field as soon as possible. Concussions might represent one of the injuries that trainers send their patient-athletes back on the field with before players are completely healed.

Former New York Jets lineman Peter Kendall efficiently articulated the conflict-ridden nature of team physicians' return-to-play decisions: "I see guys playing in games that I don't think a personal advocate would allow them to do[.] The doctor who is supposed to be looking out for you is also the same guy who may put you into a game that the team has to win. You're mixing business with medicine." Thus, in three sentences, Kendall summarized the risk involved with trainers practicing medicine under conflicted financial and medical interests.

The physician-patient dynamic of the New York Jets presents a paradigm conflict of interest. Dr. Elliot Pellman serves as *both* the Director of Medical Services for the New York Jets *and* as NFL Concussion Committee member. Because of Pellman's dual

role, the Jets concussion policies and procedures have drawn heightened scrutiny from outside observers.

Pellman's management of the concussion Jets wide receiver Wayne Chrebet sustained on November 2, 2003 triggered significant criticism from both scientists and players. In this November 2, 2003 game against the New York Giants, Chrebet's concussion left him face down in an unconscious state for several minutes. Pellman elected to send Chrebet back into contact during the *same* game despite Chrebet's prolonged state of unconsciousness. Chrebet was subsequently placed on injured reserve for the remainder of the season. "Chrebet, 34, has recently acknowledged that he has bouts of depression and memory problems so severe that he cannot make the routine drive from his New Jersey home to his Long Island restaurant without a global positioning system." (Emphasis partly in original; footnotes omitted).

68. *ESPN The Magazine* reported vividly on this incident:

"There's going to be some controversy about you going back to play." Elliot Penman looks Wayne Chrebet in the eye in the fourth quarter of a tight game, Jets vs. Giants on Nov. 2, 2003, at the Meadowlands. A knee to the back of the head knocked Chrebet stone-cold unconscious a quarter earlier, and now the Jets' team doctor is putting the wideout through a series of mental tests. Pellman knows Chrebet has suffered a concussion, but the player is performing adequately on standard memory exercises. "This is very important for you," the portly physician tells the local hero, as was later reported in the *New York Daily News*. "This is very important for your career." Then he asks, "Are you okay?" When Chrebet replies, "I'm fine," Pellman sends him back in.

A couple of days after Wayne Chrebet is knocked senseless by the Giants, he is sluggish and tired, and his head aches. "It was stupid, trying to get back out there," he says. "That's just me trying to convince them and myself that everything is all right." The Jets staff, including Pellman and Barr, diagnose Chrebet with postconcussion syndrome. Ten days after the game, the Jets place Chrebet on injured reserve.

Penman makes no apologies. "Wayne returned and was fine," he tells the media. "He did not suffer additional injury. If he had suffered additional injury, his prognosis would be no different.

"Let's say I didn't allow him to return to play, and he played the following week," he continues. "The same thing could have happened. The decision about Wayne returning to play was based on

1 scientific evaluation. As we stand now, that decision made no
2 difference as to what's happening today.

3 "This decision is so that I can sleep well at night and so Wayne's
4 wife can sleep well at night," he says about ending Chrebet's season.

5 "Nobody gets second-guessed."

6 69. This incident corroborates another factor contributing to the NFL's
7 practices: NFL player contracts are structured in a manner to incentivize underreporting of
8 concussions. Such contracts typically do not guarantee payment to players beyond the season in
9 which an injury occurs. If the player cannot pass the medical check-up at the commencement of
10 the subsequent season, the contract is voided and the player may end up paying medical expenses
11 for brain injuries or cognitive impairment incurred on the playing field. This system operates to
12 discourage players from admitting to concussions. As the same 2009 article quoted earlier
13 explained:
14

15 **A sad consequence of the NFL's player contract scheme is the**
16 **tendency of players to withhold concussion symptoms from their**
17 **trainers and team management for fear of losing their jobs. Dr.**
18 **Kenneth Podell, director of the Sports Concussion Safety**
19 **Program at the Henry Ford Health System, summarizes the**
20 **problematic situation: "The pressure is intense; there's always**
21 **someone on the bench waiting to take your place."**

22 When team management becomes privy to a player's concussion
23 history, the team holds all leveraging power in restructuring a
24 player's contract. Players are faced with the following Hobson's
25 choice: (i) accept a less lucrative contract or (ii) face employment
26 termination. Dan Morgan, former Carolina Panthers linebacker,
27 suffered at least five concussions during his tenure with the Panthers.
28 Faced with the alternative of termination, Morgan "agreed to
restructure his \$2 million roster bonus into payments of \$125,000
for each game played. Beyond acknowledging the team's concerns
about subsequent concussions, the contract gave Morgan financial
incentive not to reveal any concussion for treatment."

Even when a player is confident enough to disclose his concussive
symptoms to a team trainer, he will not likely refuse a coach's
orders to return to play for fear of losing his starting position in
the lineup. A recent example of this situation involved the New
England Patriots franchise. While playing linebacker for the Patriots

in 2002, Ted Johnson sustained a severe concussion. After Johnson discussed his symptoms with his team trainer, the trainer advised Patriots coach Bill Belichick not to return Johnson to contact play until he became asymptomatic.

Belichick disregarded the trainer's advice by continually sending Johnson back into full contact practices. In defending his decision to return Johnson to play against the trainer's orders, Belichick said: "If [Johnson] felt so strongly that he didn't feel he was ready to practice[,] he should have told me." The flaw in Belichick's logic is that it assumes Johnson was confident enough in his job security to defy his coach's orders. If Johnson informed Belichick of his inability to return to play, he would have effectively terminated his own contract with the Patriots. (Emphasis added).

70. In November of 2008, Greg Aiello ("Aiello") sounded a similar theme, saying to the press that **hundreds of thousands of people have played football and other sports without experiencing any problem of this type and there continues to be considerable debate within the medical community on the precise long-term effects of concussions and how they relate to other risk factors.**" (Emphasis added). He neglected to mention that the debate was principally between the scientists in the pay of the League and scientists operating independently of the League.

71. The disingenuous nature of the NFL's position was exposed in September 10, 2009 when the University of Michigan's Institute for Social Research published a study of retired NFL players commissioned by the NFL Player Care Foundation. The study found that retired NFL players are diagnosed with Alzheimer's disease or similar medical conditions far more often than the national population—including a rate of 19 times the normal incidence for men aged 30 through 49.

72. Despite these findings from a study that the League sponsored, the NFL continued to deny publicly any link between concussions on the playing field and dementia. A September 29, 2009 *New York Times* article reported as follows:

An N.F.L. spokesman, Greg Aiello, said in an e-mail message that the study did not formally diagnose dementia, that it was

subject to shortcomings of telephone surveys and that "there are thousands of retired players who do not have memory problems."

"Memory disorders affect many people who never played football or other sports," Mr. Aiello said. "We are trying to understand it as it relates to our retired players."

As scrutiny of brain injuries in football players has escalated the past three years, with prominent professionals reporting cognitive problems and academic studies supporting a link more generally, the N.F.L. and its medical committee on concussions have steadfastly denied the existence of reliable data on the issue. The league pledged to pursue its own studies, including the one at the University of Michigan.

Dr. Ira Casson, a co-chairman of the concussions committee who has been the league's primary voice denying any evidence connecting N.F.L. football and dementia, said: "What I take from this report is there's a need for further studies to see whether or not this finding is going to pan out, if it's really there or not. I can see that the respondents believe they have been diagnosed. But the next step is to determine whether that is so."

The N.F.L. is conducting its own rigorous study of 120 retired players, with results expected within a few years. All neurological examinations are being conducted by Dr. Casson. (Emphasis added).

73. After the publication of the University of Michigan study, the House Judiciary Committee commenced an inquiry into "Legal Issues Relating To Football Head Injuries" and held its first hearing on October 28, 2009. Representative John Conyers ("Conyers") summarized the evidence:

There appears to be growing evidence that playing football may be linked to long-term brain damage. For example, a 2003 University of North Carolina study found that professional players who suffered multiple concussions were three times more likely to suffer clinical depression than the general population. A follow-up study in 2005 showed NFL players suffering concussions had five times the rate of cognitive impairment. And retired players were 37 percent more likely to suffer from Alzheimer's than the population as a whole. Earlier this year, the University of Michigan released a study that found that 6.1 percent of NFL players over 50 years of age reported they had received a dementia-related diagnosis—a statistic five times higher than the national average. Players age 30 through

49 showed a rate of 1.9 percent of dementia-related diagnosis 19 times that of the national average.

The National Football League is performing its own long-term study, **and has largely sought to discredit these reports or some of the conclusions drawn from some of these reports. The football league described the reports as flawed.**

Dr. Ira Casson, the co-chair of the NFL's Mild Traumatic Brain Injury Committee, denied the linkage on six separate occasions. When asked whether there was any linkage between playing football and CTE, Dr. Casson stated that it has never been scientifically, validly documented. The league said the recent University of Michigan study was flawed and that further study was necessary. The *New York Times* data released last week, was, they said, for self-promotional and lobbying purposes of the union. Given there is no consensus between the league and its players and the medical community about the causes of these cognitive disorders, it should come as no surprise there is little agreement about how to respond. (Emphasis added).

74. Representative Linda Sanchez ("Sanchez"), who had participated in the 2007 hearings mentioned earlier, was present and stated:

There are increasing studies and a body of evidence that show that there is a significant risk to individuals who suffer repeated head trauma, whether it's in the NFL, in professional boxing, or even high school sports, and while there are those here today who will argue against the validity of some of these studies, there appears to be a preponderance of evidence that a number of professional athletes who suffer repeated head trauma experience physical and mental decline earlier than the general population at large, and it would seem to me—and I stated this to Commissioner Goodell at the last hearing that we held that it would be better for the NFL and the NFLPA to be proactive in alerting its players to the risks that they face, and it's my hope that in the discussion that we have here today, the NFL and the NFLPA will make continued improvements in educating players on the dangers they face by playing with a concussion, treating those athletes appropriately who do have concussions, and removing the stigma that pressures players to play through the injury, and one of the most recent quotes that was heard on November 29th, 2009, was an interview during the pregame show before the Steelers' matchup with the Ravens when somebody said, basically, that he had been dinged up and got right back into the game and that, you know, just because somebody's having headaches, pretty much the quote is, you know, they need to suck it up and continue to play on, and the fact of the matter is that sucking

it up and continuing to play on may mean very serious and grave consequences down the line.

Many witnesses that we have had before the Committee have testified about how the NFL, like it or not, influences the lower levels of football, and the actions that they take or the actions that they choose to ignore to take have significant impact on players at lower levels. The NFL, quite frankly, has vast resources available to its disposal to educate coaches and players and medical personnel on the proper way to handle a concussed player, and if they have all these resources available to them and are not addressing the problem, imagine how can we expect every high school or college to be able to properly treat a concussed player if that proper action isn't being taken at the very top levels of the sport? (Emphasis added).

75. Despite this overwhelming evidence, Goodell refused to answer questions of whether NFL-related concussions led to cognitive decline among retired players. The Judiciary Committee played a televised interview of Casson denying any links between NFL player multiple head injuries and subsequent cognitive deterioration.

76. Sanchez pressed the issue with Goodell during his testimony as follows:

Now, the question that I have for you is, I am a little concerned, and I hear the concern expressed by some of the witnesses on the panel today, that **the NFL sort of has this kind of blanket denial or minimizing of the fact that there may be this, you know, link. And it sort of reminds me of the tobacco companies pre-1990's when they kept saying no, there is no link between smoking and damage to your health or ill health effects. And they were forced to admit that that was incorrect through a spate of litigation in the 1990's.** And my question to you is wouldn't the league be better off legally, and wouldn't high school and college football players be better off, if instead of trying to minimize this issue, the league took the opposite perspective and said, look, even if there is a risk, however minuscule, that there may be this link, so we really need to jump on top of it and make kids and parents aware of this so that there isn't this sort of sense that the NFL is really just slow walking the issue to death by saying, well, we have been studying the issue for 15 years, we are going to maybe study it another 15 more years, when there is already non-NFL paid for research that suggests that there is this very high correlation with cognitive impairment? Don't you think the league, you know, would be better off legally, and that our youth might be a little bit better off in terms of knowledge, if you guys just embraced that there is research that suggests this and admitted to it? (Emphasis added).

Mr. GOODELL. Well, Congresswoman, I do believe that we have embraced the research, the medical study of this issue. As you point out_____

Ms. SANCHEZ. You are talking about one study, and that is the NFL's study. You are not talking about the independent studies that have been conducted by other researchers. Am I correct in stating that?

Mr. GOODELL. I am not sure of your question.

Ms. SANCHEZ. There are other studies, research in dementia and CTE that show that there is a link. But again the league seems to downplay that and say, well, you know, we are conducting our own study and, you know, when we have that study completed then we will know.

Mr. GOODELL. No, I think what we are doing is because we have to a large extent driven this issue by making sure that we have medical professionals studying this issue. I am not a medical professional.

[Ms. SANCHEZ.] **So my question is why are you even going through, you know, the charade of presenting the final analysis of going through this study if the determination, in my opinion, has already been made by Dr. Casson and, you know, is denied in the pamphlet that they hand out to NFL players?**

Mr. GOODELL. Well, first let me say I do not, and I think you stated that he is the only one examining these patients and the findings. That is not correct.

Ms. SANCHEZ. He is not controlling the examinations or the findings?

Mr. GOODELL. I would not say he is controlling that at all, no.

Ms. SANCHEZ. He is participating in it, though.

Mr. GOODELL. I do not know if he is participating in the examinations. I can find that out.

Ms. SANCHEZ. And he has been a consultant to the NFL, is that correct?

Mr. GOODELL. He has been on our MTBI committee for several years, yes.

Ms. SANCHEZ. **And some of the people who are participating in this study have other conflicts of interest. You know, one of the committee members on the concussion committee owns the company that makes and markets, mainly through its use by most of the NFL teams, the neuropsychological test that is used in the study. Isn't that true?**

Mr. GOODELL. I don't know the answer to that question, but I will find out for you.

Ms. SANCHEZ. **My suggestion would be, and my time has expired, but my suggestion would be that instead of having NFL-connected consultants and doctors, that perhaps the true findings of a truly unbiased study would be better conducted by people who have not been on the payroll or not been retained by the NFL in any capacity.** (Emphasis added).

77. The NFL thereafter reacted to this barrage of criticism by having Casson and Viano, who had replaced Pel!man as co-chairs of the MTBI Committee, resign by suspending that Committee's research. The League also pledged to donate a paltry \$1 million to subsidize the CSTE's research on CTE.

78. On December 2, 2009, Goodell announced an update on concussion guidelines for the League's players. The statement outlined several changes. First, players who sustained a concussion should not return to practice or game play the same day if the following signs or symptoms are present: loss of consciousness, confusion, amnesia or other memory problems, abnormal neurological exam, new and persistent headache, or any other persistent concussion signs. Second, if a player is held from a game, clearance for return to play should be determined by both the team physician and an independent neurological consultant. Return to play should not be considered until the athlete is asymptomatic, both at rest and with exertion, has a normal neurological exam, and has normal neuropsychological testing. The NFL subsequently clarified that primary sports care physicians could be treated as independent neurological consultants.

79. Aiello, the League spokesperson who had made staunch denials of the link between concussions and brain injury as late as September of 2009, made the following admission in a December 20, 2009 interview with a reporter for the *New York Times*:

After weeks of transforming its approach to concussions and its research into their long-term effects among players, the N.F.L. not only announced Sunday that it would support research by its most vocal critics but also conceded publicly for the first time that concussions can have lasting consequences.

"It's quite obvious from the medical research that's been done that concussions can lead to long-term problems," the league spokesman Greg Aiello said in a telephone interview. He was discussing how the league could donate \$1 million or more to the Center for the Study of Traumatic Encephalopathy at Boston University, whose discoveries of brain damage commonly associated with boxers in the brains of deceased football players were regularly discredited by the N.F.L.

Told that his statement was the first time any league official had publicly acknowledged any long-term effects of concussions, and that it contradicted past statements made by the league, its doctors and literature currently given to players, Aiello said: "We all share the same interest. That's as much as I'm going to say."

Since an Oct. 28 hearing before the House Judiciary Committee, when the league's approach to science was compared to that of the tobacco industry, the N.F.L. has accepted the resignations of the co-chairmen of its concussion committee and overhauled its policies toward concussion management. Players now must be cleared by brain-injury experts unaffiliated with the team, and cannot return to a game or practice in which they have shown any significant sign of concussion.

The second rule has since been recommended by an N.C.A.A. committee as standard policy for athletes in all sports, and will be considered by several state legislatures that have bills governing high school athletics before them.

The recent changes by the N.F.L. had amounted to tacit acknowledgments that it was no longer able to defend a position that conflicted with nearly all scientific understanding of head trauma.

Until recently, the league and its committee on concussions had consistently minimized evidence testifying to the risks of repeated brain trauma in N.F.L. players — from researchers like

those at Boston University, to phone surveys the league itself commissioned, to demographic analysis of players known to have early-onset dementia. While discrediting such evidence, a pamphlet on concussions currently given to players states, "Research is currently underway to determine if there are any long-term effects of concussion in N.F.L. athletes."

That research study, conducted by the N.F.L.'s committee on concussions, was recently suspended amid strong criticism of its design and execution by outside experts, players and members of Congress.

"Mr. Aiello's statement is long overdue — it's a clear sign of how the culture of football has changed in recent months," Dr. Robert Stern, a co-director of the Boston University center and its Alzheimer's Disease Clinical and Research Program, said in a telephone interview.

"There is no doubt that repetitive blows to the head result in long-term problems in the brain, including progressive dementia. With the N.F.L. taking these recent actions, we are finally at a point to move forward in our research and ultimately solve this important problem — for professional athletes and collegiate and youth players." (Emphasis added).

80. Despite these concessions, the problem continued unabated. 30 of **i60** NFL players surveyed by the Associated Press in November of 2009 stated that they either failed to report or underreported concussion symptoms. Players admitted that they returned to play after a concussion feeling dazed or woozy or suffering from blurred vision.

81. In March of 2010, the MTBI Committee got a new name and new co-chairs. It was rechristened as the Head, Neck and Spine Medical Committee, and became jointly chaired by Dr. H. Hunt Batjer ("Batjer") of Northwestern Memorial Hospital and Dr. Richard Ellenbogen ("Ellemborgen") of Harborview Medical Center in Seattle. Batjer and Ellenbogen replaced Casson and Viano, who in turn had replaced Pellman.

82. In a May 2010 Congressional hearing, Representative Anthony Weiner addressed Batjer and Ellenbogen as follows: **"Mou have years of an infected system here, land] your job is ...to mop lit] up."** (Emphasis added).

83. Batjer and Ellenbogen conceded in June of 2010 that the League's efforts with respect to concussion and brain injury were riddled with duplicity, conflicts of interest and shocking ineptitude. As was reported in a June 1, 2010 *New York Times* article:

They accused a fellow doctor of minimizing solid evidence of the dangers of football concussions. They concurred that data collected by the N.F.L.'s former brain-injury leadership was "infected," said that their committee should be assembled anew, and formally requested that the group's former chairman, Dr. Elliot Petman, not speak at a conference Wednesday.

For the first time these remarks came not from outside critics of N.F.L. research but from those now in charge of it — Dr. H. Hunt Batjer and Dr. Richard G. Ellenbogen, prominent neurosurgeons who became co-chairmen of a new league committee in March. One week after two members of Congress accused the doctors of sounding too much like their predecessors, and on the eve of a league-sponsored symposium in Washington held by Johns Hopkins Medicine, Batjer and Ellenbogen made clear they planned to chart a new course.

The two doctors criticized Johns Hopkins's promotional brochure for Wednesday's conference — which was open only to N.F.L. medical personnel, other doctors and members of the United States Department of Defense — for playing down existing evidence of brain damage in retired football players.

The opening paragraph described the disease chronic traumatic encephalopathy as "now being reported in football players, although with unknown frequency." It added that these and related matters had been reported by the news media "with considerable hype around assertions of long-term harm to players from head injuries."

Batjer and Ellenbogen said that the frequency of reports of C.T.E. in players is not unknown — a Boston University research group has diagnosed it in all 12 former college and N.F.L. players of various ages it had tested for the condition.

"They aren't assertions or hype — they are facts," said Ellenbogen, the chief of neurological surgery at Harborview Medical Center in Seattle, who has been instrumental in drafting legislation to protect young athletes from head injuries.

He added: "Doctors were relatively ineffectual for 25 years on this issue. Then it's on the front page and everything focuses like a laser beam and things begin to change from baby steps to giant steps

forward protecting kids. From a doctor-patient perspective, it's been the single best thing that has happened to this subject."

Dr. Constantine G. Lyketsos, a professor of psychiatry and behavioral sciences at Johns Hopkins who is directing Wednesday's conference, said in a telephone interview that he wrote the brochure and that the N.F.L. had no role with the event, other than providing financing. He defended his choice of words.

"We know of 12 cases" of C.T.E., Lyketsos said. "We don't know how many don't have it."

Regarding news media coverage of the harm caused by repeated concussions in football players, Lyketsos said: "There is a concern that I have that the possibility of serious long-term consequences are being overemphasized without clear evidence. It could turn out correct. It could turn out incorrect. We don't know."

He added: "I worry that it might be a disservice. That's a possibility."

The league spokesman Greg Aiello declined to comment on Lyketsos's statements, other than saying that the league has given \$1 million to the Boston University group to support its research.

The former leaders of the N.F.L. concussion committee generally agreed with Lyketsos, an attitude that ultimately came to the attention of Congress and led to several hearings on the subject of sports concussions in athletes of all ages. Batjer and Ellenbogen had a shaky debut before some frustrated members of the House Judiciary Committee during a forum in New York on May 24, but in the following days they made sure they would no longer resemble their predecessors.

The doctors said the old committee's ongoing studies on helmets and retired players' cognitive decline — whose structure and data were strongly criticized by outside experts — would not be used in any way moving forward. They said they were influenced by a comment made to them last Monday by Representative Anthony D. Weiner, Democrat of New York: "You have years of an infected system here that your job is to some degree to mop up."

"The word 'infected' hit me right between the eyes," said Ellenbogen. He and Batjer became co-chairmen of the N.F.L. committee in March.

Batjer added: "We all had issues with some of the methodologies described, the inherent conflict of interest that was there in many

areas, that was not acceptable by any modern standards or not acceptable to us. I wouldn't put up with that, our universities wouldn't put up with that, and we don't want our professional reputations damaged by conflicts that were put upon us."

Batjer said that he and Ellenbogen had begun reconstituting their committee from scratch. He said that six members had been selected so far, none of them holdovers from the prior regime.

The doctors so wanted to distance themselves from the past that on Monday they requested that Penman, who was scheduled to deliver some opening remarks at the Johns Hopkins symposium, be removed from the program. Pellman was the chairman of the N.F.L. concussion committee from 1994 to 2007 and stayed on it until he resigned in March. He remains the league's medical director and helped with the conference's logistics.

On Tuesday, an e-mail message was distributed to conference organizers saying that Pellman would not attend the conference for family-related reasons.

"Neither Rich nor I thought he should appear to represent the N.F.L. in what would look like a leadership role," Batjer said. "It's not about Elliot. It's about a complete severance from all prior relationships from that committee." (Emphasis added).

84. As reported in a July 26, 2010 article in the *New York Times*, on June 10, 2010, the NFL issued a warning poster that was placed in the locker rooms of member clubs and was also turned into a pamphlet. A copy of the poster is reproduced below. It stands in stark contrast to the pamphlet issued by the League in April of 2007. This advice was never given previously by the NFL and was certainly not given to players who retired prior to June of 2010. As the same article went on to note:

The league's reversal is not necessarily complete. On April 30, an outside lawyer for the league, Lawrence L. Lamade, wrote a memo to the lead lawyer for the league's and union's joint disability plan, Douglas Ell, discrediting connections between football head trauma and cognitive decline. The letter, obtained by The *New York Times*, explained, "We can point to the current state of uncertainty in scientific and medical understanding" on the subject to deny players' claims that their neurological impairments are related to football. (Emphasis added).



RIPS

CONCUSSION

A Must Read for NFL Players
Let's Take Brain Injuries Out of Play



Concussion Facts

Concussion is a *brain injury* that alters the way your brain functions

Concussion can occur from a blow to the head/body:

- following helmet to helmet contact, and for
- contact with the ground, object or another player

Most concussions occur without being knocked unconscious

Severity of injury depends on many factors and is not known until symptoms resolve and brain function is back to normal

Each player is different, each injury is different and all injuries should be evaluated by your team medical staff

Concussion Symptoms

Different symptoms can occur and may not show up for several hours. Common symptoms include:

- | | |
|------------------------------------|--|
| - Confusion | - Feeling sluggish, irritable, or groggy |
| - Headache | - Sensitivity to noise |
| - Amnesia / Difficulty remembering | - Sensitivity to light |
| - Balance problems | - Double / fuzzy vision |
| - Irritability | - Slowed reaction |
| - Difficulty concentrating | - Feeling more emotional |
| | - Sleep disturbances |
| | - Loss of consciousness |

Symptoms may worsen with physical or mental exertion (computer use, reading)

Why Should I Report My Symptoms?

- Practicing or playing while still experiencing symptoms can prolong the time to recover and return to play.
- Unlike other injuries, there may be significant consequences of "playing through" a concussion. Repetitive brain injury, when not treated promptly and properly may cause permanent damage to your brain.

What Should I Do If I Think I've Had a Concussion?

Report it Never ignore symptoms even if they appear mild. Look out for your teammates. Tell your Athletic Trainer or Team Physician if you think you or a teammate may have had a concussion.

Get Checked Out. Your team medical staff has your health and well being as its first priority. They will manage your concussions according to NFL / NFLPA Guidelines which include being fully asymptomatic, both at rest and after exertion, having a normal neurologic examination, normal neuropsychological testing, and clearance to play by both the team medical staff and the independent neurologic consultant.

Take Care of Your Brain. According to the CDC, "traumatic brain injury can cause a wide range of short- or long term changes affecting thinking, sensation, language, or emotions". These changes may lead to problems with memory and communication, personality changes, as well as depression and the early onset of dementia. Concussions and conditions resulting from repeated brain injury can change your life and your family's life forever.



Work smart. Use your head,
don't lead with it. Help make
our game safer. Other athletes
are watching...



for more information about traumatic brain injury and concussion, go to <http://www.cdc.gov/concussion>

85. Yet even after this new warning, NFL players are still going out on the field after receiving a significant concussion. In a September 19, 2010 posting by Sam Donellon, a sports columnist on Philly.com, it was noted:

A THOUSAND pardons. For the game plan, for the execution, for the ever-present "Not putting the guys in the right places" to succeed during Sunday's 27-20 loss to the Green Bay Packers.

[Philadelphia Eagles Head Coach] Andy Reid issued his familiar post-loss mea culpas yesterday, vowing to "tighten up" special teams play, execution particularly on offense, and even his play-calling.

The only thing he didn't apologize for was how, or why, two of his stars were allowed to re-enter the game after getting concussed Sunday afternoon at Lincoln Financial Field.

That's because in his mind, and apparently in the minds of too many still involved in the NFL, he and his medical staff did what it was supposed to do in the cases of Stewart Bradley and Kevin Kolb. Asked all the right questions, got all the right answers, sent both back into a game even after both had displayed, for a national audience to see, evidence of head trauma.

To wit:

Kolb lying face down for several seconds before rising slowly, grass hanging from his facemask, walking slowly from the field;
Bradley bouncing up after an inadvertent knee-to-helmet hit, only to stumble back down to the ground, clearly disoriented.

That's a key word, disoriented. It's used in those famous updated guidelines the NFL issued last December to teams regarding concussions in the wake of congressional hearings and some high-profile injuries, including the repeated concussions to former Eagle Brian Westbrook.

"A player who suffers a concussion should not return to play or practice on the same day," said an NFL release on those guidelines, which lists among symptoms "Loss of consciousness" and "Confusion as evidenced by disorientation to person, time or place; inability to respond appropriately to questions; or inability to remember assignments or plays."

So what are we missing here? Reid said repeatedly Sunday, and again yesterday, that appropriate answers were given to questions. He said Kolb's inability to remember plays was only evident after he returned to play, and he was yanked after a three-and-out series.

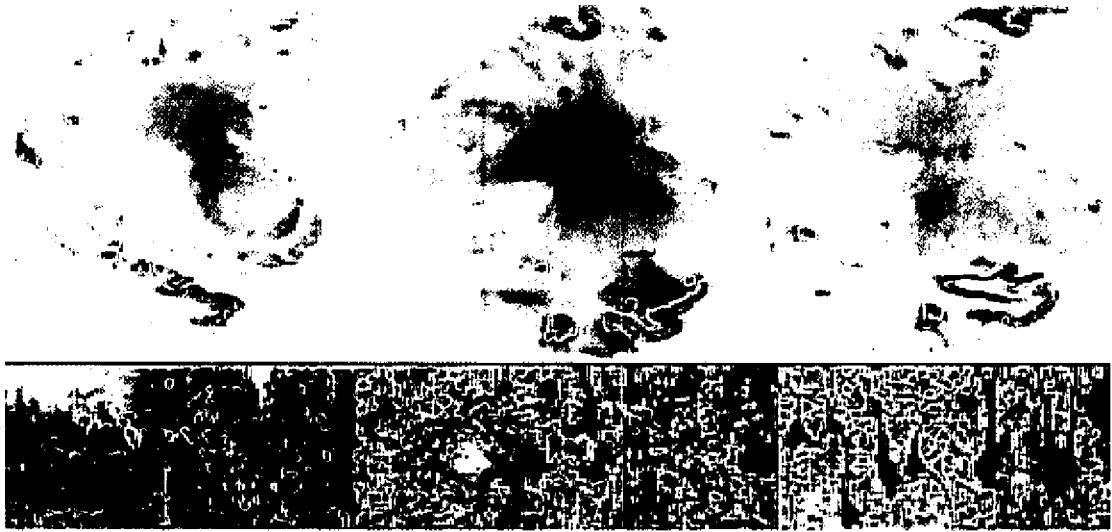
But both men were clearly disoriented when they first reached their feet, and this is where we tread into the NFL's continued ambiguity over what it views as serious head trauma. Was Bradley's stumble due to poor balance or dizziness? The guidelines say poor balance necessitates removal, dizziness not necessarily so. But what's the difference and how the hell can anyone tell? Aren't they the same thing?

86. As another example, the Concussion Blog reported on Austin Collie ("Collie"), a wide receiver who played for the Indianapolis Colts in 2010. Collie suffered a concussion in Week 9 of the regular season and was benched in Week 10. He returned in Week 11, and was withdrawn after playing part of that game because of "worsening symptoms." He was benched in Weeks 12-14, but returned in Week 15, only to receive yet another concussion. As the Concussion Blog noted:

NFL "Policy" indicates that a player will not return from a concussion unless they pass all tests. Therefore if Indianapolis followed the "policy" then Collie was cleared and passed all tests by Week 11, and his first concussion resolved. The reports of more/worsening symptoms after 1st half of Pats game indicates that he MUST have sustained a second concussion. Then upon returning this week that would have meant that he cleared all tests and AGAIN sustained a concussion, his THIRD. Let me be clear here, you can only "aggravate" a concussion if you have not recovered from the first. And a player SHOULD NOT be playing with an unresolved concussion, by "policy". ...The Colts already are spinning this one, but no matter how you look at it they either failed the "policy" or knowingly put him back into action with a concussion. At the very least they misreported the second. If he were returned in Week 11 and "aggravated" it then he was not properly handled the first time.

87. The plight of former NFL players suffering from brain injuries caused by their service in the game has continued in 2011. One example is provided by the case of Dave Duerson ("Duerson"), a former safety for the Chicago Bears and the New York Giants. After suffering months of headaches, blurred vision and deteriorating memory, Duerson committed suicide at the age of 50 on February 17, 2011. His final note asked that his brain be given to the NFL brain bank for evaluation.

88. On May 2, 2011, researchers at CTSE at Boston University reported that Duerson was suffering from CTE and released photographs of the autopsy of his brain. Examples of those photographs obtained from the website of CBS Chicago are reproduced below:



Damn= Placmori

89. The top row of photographs depicts three half sections of Duerson's brain that exhibit multiple areas of damage (brown coloring) in the frontal and temporal cortex, hippocampus and amygdala. The bottom row of photographs depicts microscopic images from these damaged areas, showing severe neurodegeneration. As CBS Chicago reported:

Dr. Robert Cantu, co-director of the CTSE, said at a news conference that such results normally are published first, but the Duerson family wanted them released earlier.

"It is our hope that through this research questions that go beyond our interests may be answered," The Duerson family said in a statement. "Questions that lead to a safer game of football, from professional to Pop Warner; Questions that lead to better diagnostic tests for those alive; and Questions that lead to a cure; will all hopefully be answered." (Emphasis added).

90. When this information was reported, DeMaurice Smith, Executive Director of the NFLPA, stated that the fact that Duerson was suffering from CTE "makes it abundantly clear what the cost of football is for the men who played and the families. It seems to me that any decision or course of action that doesn't recognize that as the truth is not only perpetuating a lie,

but doing a disservice to what Dave feared and what he wanted to result from the donation of his brain to science."

91. Another example is provided by the case of John Mackey ("Mackey"), the former tight end of the Chicago bears, who died in July of 2011 and for whom the 88 Plan described below was named. Mackey was diagnosed with frontotemporal dementia in 2007, forcing him to live full-time in an assisted living facility. The NFLPA refused to pay a disability income to him because it claimed that there was no proven direct link between brain injury and NFL game participation. When the 88 Plan came into being, he received payments pursuant to it, but they were far less than his family's costs. Mackey made less than a total of \$500,000 during his decade-long NFL career. His wife, Sylvia, had to work as a flight attendant to supplement his NFL pension of \$2,500 per month after they sold their California home to provide for his extensive medical care.

92. The legendary Chicago Bears player, Gale Sayers, was asked about Mackey's demise by a reporter for the Chicago *Tribune* and his response was reported as follows: "Sayers feels the NFL could have done more to help Mackey during his final years. You know, John Mackey died at 60-something (69),' said Sayers. '(The NFL) could have helped him more, I felt. But they didn't, and the players (NFLPA) could have helped more, and it didn't happen.'

93. On information and belief, proposals have been submitted to the NFL MTBI Committee about concussion concerns and the need to do regularized testing of players. To the best of Plaintiffs' knowledge, the League has never acted on them.

94. The NFL's conduct stands in sharp contrast to what has been done or promulgated by other sports or medical bodies.

95. For example, Rule 4.2.14 of the World Boxing Council's Rules and Regulations states: "[b]oxers that suffered concussion by KO, should not participate in sparring sessions for 45 days and no less than 30 days after concussive trauma, including but

not limited to KO's, and should not compete in a boxing match in less than 75 days."

(Emphasis added).

96. The Second International Conference on Concussion in Sport met in Prague in 2004 and released the following statement: "[W]hen a player shows ANY symptoms or signs of a concussion ... the player should not be allowed to return to play in the current game or practice ... When in doubt, sit them out!" (Emphasis added). This directive echoed the position taken by the First International Conference on Concussion in Sport, held in Vienna in 2001.

97. As ESPN has noted, "Nil standard U.S. guidelines, such as those first set by the American Academy of Neurology and the Colorado Medical Society, agree that athletes who lose consciousness should never return to play in the same game." (Emphasis added).

98. Another example is provided by the National Collegiate Athletic Association ("NCAA"), which also recognized inexcusably late the link between head impacts and brain injuries, and which did not taking affirmative action on this until 2010. The NCAA is the subject of at least two class actions suit for this tardiness. Nevertheless, once it did act, it did so in a manner that was more decisive than the NFL. The NCAA's webpage on concussion-related resources (*see* http://www.ncaa.org/wps/portal/ncaaahome?WCM_GLOBAL_CONTEXT=/ncaa/NCAA/Academics+and+Athletes/Personal+Welfare+Health+and+Safety/Concussion) indicates that in an educational partnership with the Centers for Disease Control and Prevention, the NCAA has supplied each member college campus with two posters and two sets of fact sheets addressing concussion awareness, prevention, and management. It has issued the "NCAA Sports Medicine Handbook — Guideline on Concussions in the Athlete," which recommends best practices. The NCAA also requires each member college to develop a "Concussion Management Plan." One exemplar plan offered on the NCAA's website is the University of Georgia Athletic Association's ("UGAA") "Concussion Management Guidelines," which read as follows:

1. UGAA will require student-athletes to sign a statement in which student-athletes accept the responsibility for reporting their injuries and illnesses to the sports medicine staff, including signs and symptoms of concussions (attachment A). During the review and signing process student-athletes will watch a NCAA video on concussions and be provided with educational material 1 on concussions (attachment 13).

2. UGAA will have on file and annually update an emergency action plan (attachment C) for each athletics venue to respond to student-athlete catastrophic injuries and illnesses, including but not limited to concussions, heat illness, spine injury, cardiac arrest, respiratory distress (*e.g.* asthma), and sickle cell trait collapses. All athletics healthcare providers and coaches shall review and practice the plan annually. These sessions will be conducted prior to the start of the sport season. . . The UGAA compliance office will maintain a list of staff that have completed the requirement on file.

3. UGAA sports medicine staff members shall be empowered to determine management and return-to-play of any ill or injured student-athlete, as he or she deems appropriate. Conflicts or concerns will be forwarded to Ron Courson (director of sports medicine) and Fred Reifsteck, MD (head team physician) for remediation.

4. UGAA shall have on file a written team physician—directed concussion management plan (attachment D) that specifically outlines the roles of athletics healthcare staff (*e.g.*, physician, certified athletic trainer, nurse practitioner, physician assistant, neuropsychologist). In addition, the following components have been specifically identified for the collegiate environment:

a. UGAA coaches will receive a copy of the concussion management plan, a fact sheet on concussions in sport, and view a video on concussions annually. The UGAA compliance office will maintain a list of staff that have completed the requirement on file.

b. UGAA sports medicine staff members and other athletics healthcare providers will practice within the standards as established for their professional practice (*e.g.*, team physician, certified athletic trainer, physical therapist, nurse practitioner, physician assistant, neurologist, neuropsychologist).

c. UGAA shall record a baseline assessment for each student-athlete in the sports of baseball, basketball, cheerleading, diving, equestrian, football, gymnastics, pole vaulting, soccer, and softball, at a minimum. In addition, a baseline assessment will be recorded for student-athletes with a known history of concussion. The same baseline assessment tools should be used

post-injury at appropriate time intervals. The baseline assessment should consist of the use of: 1) symptoms checklist, 2) standardized balance assessment (Neurocom) and 3) neuropsychological testing (computerized IMPACT test). Neuropsychological testing has been shown to be effective in the evaluation and management of concussion. The neuropsychological testing program should be performed in consultation with a neuropsychologist. Post injury neuropsychological test data will be interpreted by a neuropsychologist prior to return to play. Neuropsychological testing has proven to be an effective tool in assessing neurocognitive changes following concussion and can serve as an important component of an institution's concussion management plan. However, neuropsychological tests should not be used as a standalone measure to diagnose the presence or absence of a concussion as UGAA uses a comprehensive assessment by its sports medicine staff.

d. When a student-athlete shows any signs, symptoms or behaviors consistent with a concussion, the athlete will be removed from practice or competition, by either a member of the coaching staff or sports medicine staff. If removed by a coaching staff member, the coach will refer the student-athlete for evaluation by a member of the sports medicine staff. During competitions, on the field of play injuries will be under the purview of the official and playing rules of the sport. UGAA staff will follow such rules and attend to medical situations as they arise. Visiting sport team members evaluated by UGAA sports medicine staff will be managed in the same manner as UGAA student-athletes.

e. A student-athlete diagnosed with a concussion will be withheld from the competition or practice and not return to activity for the remainder of that day. Student-athletes that sustain a concussion outside of their sport will be managed in the same manner as those sustained during sport activity.

f. The student-athlete will receive serial monitoring for deterioration. Athletes will be provided with written home instructions (attachment E) upon discharge; preferably with a roommate, guardian, or someone that can follow the instructions.

g. The student-athlete will be monitored for recurrence of symptoms both from physical exertion and also mental exertion, such as reading, phone texting, computer games, watching film, athletic meetings, working on a computer, classroom work, or taking a test. Academic advisors and professors will be notified of student-athlete's concussion, with permission for release of information from the student-athlete.

h. **The student-athlete will be evaluated by a team physician as outlined within the concussion management plan.** Once asymptomatic and post-exertion assessments are within normal baseline limits, return to play shall follow a medically supervised stepwise process.

i. Final authority for Return-to-Play shall reside with the team physician or the physician's designee as noted in the concussion management flowchart.

5. UGAA will document the incident, evaluation, continued management, and clearance of the student-athlete with a concussion. Aggregate concussion numbers per sport will be reported to the Director of Athletics annually.

6. Athletics staff, student-athletes and officials will continue to emphasize that purposeful or flagrant head or neck contact in any sport should not be permitted. (Emphasis added).

The Riddell Defendants Are Complicit In The NFL's Misconduct

99. Riddell is complicit in the NFL's misconduct.

100. Riddell manufactures helmets for use by NFL players. Since 1989, **Riddell has been the official helmet for the League and is the only helmet manufacturer allowed to display its logo on helmets used in League games.** Prior to the commencement of the 2010 season, Riddell renewed its contract with the League allowing it to continue as the NFL's primary helmet provider through 2014. **The NFL has estimated that 75% of the helmets used in the League are manufactured by Riddell; Riddell estimated that the figure was 77%.**

101. The official guidelines from the National Operating Committee on Standards for Athletic Equipment do not address concussions. The guidelines involve a drop test designed only to simulate the forces that would cause a skull fracture.

102. Riddell has long been aware of medical issues concerning concussions. Yet despite being the maker of the official helmet for the NFL, **it did nothing to prevent the disinformation campaign engaged in by the League that is described in the preceding paragraphs.**

103. **Indeed, Riddell actively abetted the work of the NFL's MTBI Committee.** In 1997, it became part of that Committee's project of assessing concussions and health consequences to NFL players by analyzing and reconstructing head impacts.

104. In 2006, Riddell sponsored a study that appeared in *Neurosurgery* that was **co-authored by Lovell and Dr. Joe Maroon of the MTBI Committee** and Dr. Mickey Collins of the University of Pittsburgh Medical Center who works closely with various NFL member clubs that touted Riddell's "Revolution" helmet (introduced in 2002) as reducing the incidence of concussions in over 2000 high school athletes in Western Pennsylvania. **Cantu publicly criticized the study as being worthless.** This junk science is nonetheless still featured in a prominent place on Riddell's website (<http://www.riddell.com/category/research-studies/>). It is also used to promote the "Revolution Speed" helmet, which Riddell introduced in November of 2008 (<http://www.riddell.com/press-releases/2918/pressreleases speedhelmet/>).

105. In December of 2009, it was indicated that the NFL's MTBI Committee was going to develop a new football helmet safety standard by using a "linear impactor" test. Scientists were quick to react, as the *New York Times* reported:

The critics said that **an improperly developed standard could compromise safety not just in the N.F.L.,** but at the college and youth levels greatly influenced by the professional game.

"This is not going to give you data you want with regard to concussion," said Dr. Robert Cantu, a medical expert on concussions and vice president for the National Operating Committee on Standards for Athletic Equipment, known as Nocsae. **"The way in which this study is set up, it won't answer the question in any meaningful way.**

"Terrible stuff. Should never be done." (Emphasis added).

106. As an article by Pellman in *Neurosurgery* explained, out of 787 reported concussions suffered by NFL players between 1996 and 2001, the analysis focused on 25 that had

been captured on video. Cantu and Vin Ferrara ("Ferrara"), CEO of Xenith, another helmet manufacturer for the NFL, explained the shortcomings of this approach:

But it has long been recognized that the reason that player positions and yard markers were visible for those 25 collisions was that they were generally hits in the open field — where the players were moving at close to full speed and the ball carrier often didn't see the hit coming. **Because of this, Cantu said, the linear-impactor tests are replicating the most spectacular of collisions, rather than the lower forces known to cause the majority of concussions, such as hits along the line of scrimmage.**

"It's kind of like testing a car for front-end impacts by driving it off the edge of the Grand Canyon," said Ferrara, who said his letter to the IMTBII committee addressing these issues in early September was essentially ignored. "If this becomes the standard people look to, which it will because we're talking about the N.F.L., it incentivizes manufacturers to make helmets stiffer, denser and more massive. If you only design for that and ignore the other 99 percent of hits, you're making the problem worse. (Emphasis added).

107. The Riddell Revolution design was derived from these 25 incidents on video and Riddell or those closely affiliated with it, was heavily involved in the League's helmet-testing procedures. A senior engineer at Biokinetics, Christopher Withnall, is listed as co-inventor on the United States patent covering the Riddell Revolution's primary new technology. He is listed on the company's website as participating in "ongoing N.F.L. concussion research and litigation technical support" and is currently overseeing the NFL's helmet testing at Biokinetics.

108. Ferrara and Robert Erb ("Erb") of Schutt Sports, a competitor of Riddell that also supplies helmets to the NFL, have explained how the NFL's helmet testing program is designed to favor Riddell:

Erb said that too many of the doctors and technicians now involved with the N.F.L.'s testing protocol **"have a vested interest in Riddell looking good." Ferrara said that because the linear impactor and the Riddell helmets were derived from the same data, "they essentially favor each other."**

"Having those people, with all their respective interests, sitting around deciding on a helmet-testing process is like asking a

father to judge his own children in a beauty contest," Erb said. "The only thing you can be sure of is that he's not going to vote for someone else's kid." (Emphasis added).

109. At the same time Riddell was actively involved in testing helmets for safety, it was selling to the NFL helmets that provided very little protection against concussions caused by head impacts. In May of 2011, Virginia Tech and Wake Forest University conducted tests on 10 commercially available football helmets made by various manufacturers using the STAR evaluation system. Recognizing that no helmet will eliminate concussions, the universities attempted to evaluate which helmets do a better job reducing concussion risk. Helmets with lower STAR values provide a reduction in concussion risk compared to helmets with higher STAR values. The Riddell Revolution Speed had the best STAR score of 0.297. **On the other hand, the Riddell VSR-4 helmet had one of the worst scores of 0.791.**

110. **Manufacture of the VSR-4 helmet was only recently discontinued by Riddell. According to Riddell, 38% of NFL players wore the VSR-4 helmet in 2010.**

111. **The Concussion Blog reported 159 known concussions (an incidence rate of over 15%) during the 2010 NFL regular season. According to this source, 64% of the players who suffered a concussion during the 2010 season were wearing a helmet with a Riddell ID. Of that subgroup, 51% were wearing a Riddell VSR-4 helmet. The corresponding figure for the Revolution Speed helmet was 29%.**

112. The Virginia Tech-Wake Forest University study has been criticized as being incomplete, because the researchers simulated helmet-to-ground impacts, rather than helmet-to-helmet collisions that are the cause of most concussions, so the high score afforded the Riddell Revolution Speed might well be undermined if this additional factor were taken into account.

III

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